

# A New Species of *Dendropanax* (Araliaceae) from the State of Espírito Santo, Brazil

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**ABSTRACT.** *Dendropanax caudatus* Fiaschi, a new species from the rain forests of Espírito Santo, Brazil, is here described and illustrated. It resembles *D. bahiensis* Fiaschi, from which it can be distinguished by its smaller fruits and by the leaf blades, which have caudate to long-acuminate apices.

**RESUMO.** *Dendropanax caudatus* Fiaschi, uma espécie nova de matas ombrófilas do Espírito Santo, Brasil, é aqui descrita e ilustrada. Esta espécie é provavelmente relacionada a *D. bahiensis* Fiaschi, da qual pode ser distinta pelos frutos menores, e pelas lâminas foliares com ápice caudado a longo-acuminado.

**Key words:** Araliaceae, Brazil, *Dendropanax*, Espírito Santo, IUCN Conservation Status.

*Dendropanax* Decaisne & Planchon comprises ca. 100 species from tropical and subtropical Asia and Central and South America (Frodin & Govaerts, 2004). The majority of these (ca. 70 species) occur in the Americas, where they are best represented in the rain forests of northwestern South America, with secondary centers of diversity in southern Mesoamerica, Jamaica, and eastern Brazil (Frodin & Govaerts, 2004; Fiaschi, 2005).

Species of *Dendropanax* are glabrous plants with simple (sometimes palmatilobed) leaves, often 3-nerved at the base and having schizogenous glands and small intrapetiolar stipules; the inflorescences are simple or more or less compoundly arranged umbels of unjointed, pedicellate 5- to 9-merous flowers with valvate petals, glandular and versatile anthers, and fruits that sometimes have a distinct stylar column (Cannon & Cannon, 2001; Hutchinson, 1967).

Molecular evidence suggests that *Dendropanax* belongs to the Asian Palmate clade of Araliaceae, perhaps close to *Hedera* L. (Wen et al., 2001; Plunkett et al., 2004). Lowry et al. (2004) have suggested that the generic delimitation of *Dendropanax* may also require recircumscription to render it monophyletic.

*Dendropanax caudatus* Fiaschi, a new species endemic to the rain forests of Espírito Santo state, is

here described and illustrated, and its ecological aspects and putative affinities are discussed.

***Dendropanax caudatus* Fiaschi, sp. nov.** TYPE: Brazil. Espírito Santo: Santa Teresa, Rio Saltinho, terreno do Tranhago, 450 m, 13 Apr. 2003 (fl, fr), P. Fiaschi, R. Oliveira, I. Andrade, M. Andrade & L. Kollmann 1473 (holotype, CEPEC; isotypes, F, HUEFS, K, MBML, MO, NY, SPF). Figure 1.

Species nova fructibus minoribus, lamina apicibus caudatis vel longi-acuminatis a *Dendropanax bahiense* Fiaschi differt.

Shrubs 1.5–3.5 m high; young branches 2.5–4 mm diam., striate longitudinally. Leaves spirally alternate, sometimes sub-opposite, terminally congested in 2–6 cm growth modules; stipules up to ca. 2 mm, entire; petiole 1.5–10 cm, slightly compressed laterally, adaxially plane, uniformly thick; blade spreading, plane, membranous, dotted with schizogenous cavities visible with transmitted light, 8.5–23.5 × 3–7 cm, elliptic to narrowly elliptic, symmetric to slightly asymmetric, the apex caudate to long-acuminate, the base cuneate (obtuse), the margin entire or with up to 4 pairs of teeth less than 1 mm on distal half, plane; venation acrodromous and suprabasal, imperfect, brochidodromous, the main vein prominent on both surfaces, more so abaxially, the secondary veins in 6 or 7 pairs, slightly prominent on abaxial surface; the basal pair almost indistinct, diverging from midvein at up to ca. 2 mm from blade base, angle of divergence 30°–40°, the other pairs with angle of divergence 50°–60°, intersecondary veins present, clearly thinner than secondary ones, sometimes almost perpendicular to the main vein, the tertiary veins and reticulation inconspicuous to slightly visible on abaxial surface. Inflorescences terminal, erect, the main axis reduced, to ca. 1 cm; the primary branches 5 or 6, 0.8–2 cm, umbellate or densely clustered and pseudoumbellate, erect, sometimes with 1 to 3 alternate to sub-opposite bracts; umbels 15- to 25-flowered. Flowers light




Figure 1. *Dendropanax caudatus* Fiaschi. —a. Fruiting branch. —b. Leaf undersurface. —c. Flower. —d. Petal, adaxial view. —e. Stamen, abaxial view. —f. Transverse section of the fruit. —g. Fruits on infructescence axes. Drawings based on the holotype, P. Fiaschi et al. 1473 (CEPEC).

green, the pedicel 1–2 mm, elongating to 2.5–5 mm in fruit; hypanthium ca. 1.2 mm, shorter than corolla; calyx lobes 4 or 5, evident, acuminate; petals 4 or 5, 1.8–2 × 1–1.4 mm, elliptic to ovate, the apex cucullate; stamens 4 or 5, white, the filaments 1.6–1.8 mm, the anthers versatile, 1–1.1 × 0.7–0.8 mm, dorsally glandular at apex; styles 4 or 5, 0.2–0.4 mm, ovary 4- to 5-carpellate. Fruits spherical, 4- to 5-lobed when dried, 7–7.5 × 6–7.5 mm, the stylar column ca. 0.5 mm; pyrenes 4 or 5, ca. 6 × 3 mm.

**Habitat and distribution.** *Dendropanax caudatus* is known from elevations of 110–450 m, inhabiting patches of rain forest in the vicinity of the municipalities of Cachoeiro do Itapemirim and Santa Teresa, in the state of Espírito Santo, Brazil. Due to the apparent rarity and restricted distribution of *D. caudatus*, it seems prudent to include this species in the endangered category of the IUCN Red List of endangered plant species according to the following criteria (IUCN, 2001): EN B1ab (i, ii, iii).

*Dendropanax caudatus* shares several characters with *D. bahiensis* and *D. exilis* (Toledo) S. L. Jung, including a shrubby habit, membranous leaves abaxially dotted with schizogenous cavities and reduced simple or branched inflorescences with primary branches up to 3.5 cm long. This species group is endemic to the subcanopy of the Atlantic rain forests of eastern Brazil, ranging from Bahia to Santa Catarina (Fiaschi, 2005). *Dendropanax caudatus* appears to be closely related to *D. bahiensis*, from which the new species may be distinguished by its smaller fruits (7–7.5 × 6–7.5 mm vs. 9–10 × 10–10.5 mm) and leaf blades with an apex caudate to long-acuminate (vs. acute to short-acuminate).

**Paratypes.** BRAZIL. Espírito Santo: Cachoeiro do Itapemirim, Pacotuba, Res. Flor. Bananal do Norte, *D. Sucre* & *T. Soderström* 8999 (CEPEC, RB, SPF); Santa Teresa, Rio Saltinho, terreno do Tranhago, *L. Kollmann*, *E. Bausen* & *W. Pizzoli* 4477 (MBML, SPF).

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